0000013

November - December 1997

The following is being submitted to U.S. EPA pursuant to section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 for the Master Metals Site, U.S. EPA Docket No. V-W-'97-C-402. This report covers the period November 15, 1997 through December 15, 1997.

Work Performed

Activities completed during this reporting period were almost entirely dedicated to the completion of the Holmden Avenue property removal. Investigatory activities associated with the Phase II EE/CA investigation also concluded during this period, as well as demobilization of ENTACT crew and equipment from the site.

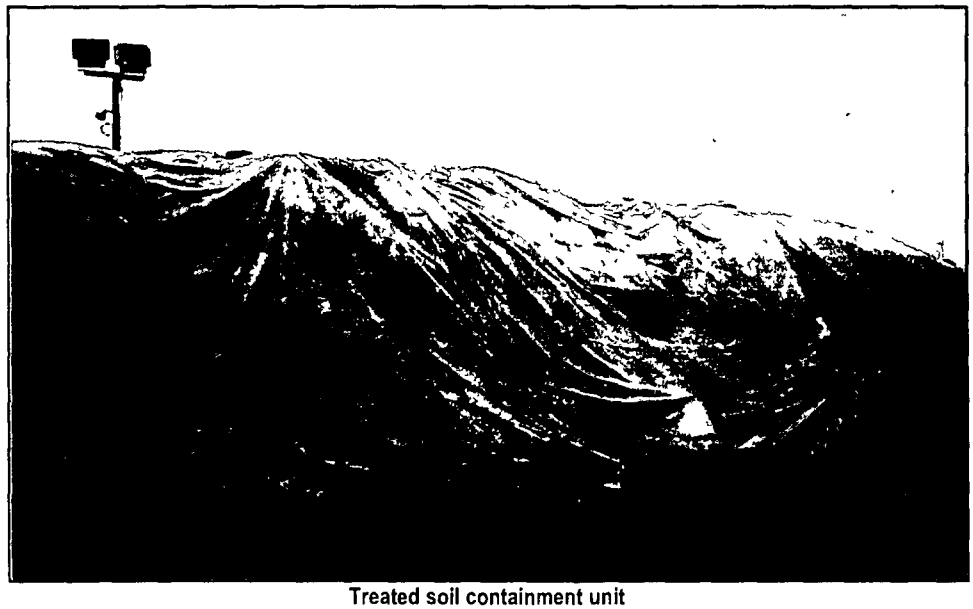
Holmden Ave. Removal

Excavation

After site preparation and utility location were performed during the last reporting period, removal activities began in earnest during the third week of November. An X-ray Fluorescence Analyzer (XRF) was utilized to guide excavation. The XRF is used to screen the soil in the field to determine if the clean up criteria of 400 ppm total lead has been achieved. Excavation began at the furthest point west on the property (see attached Figure 1) and proceeded east then north towards Holmden Avenue. From each initial starting point, the inaccessible portions of the property were excavated approximately one-third (1/3) of the distance down the slope. Next, the stockpiled soil and the underlying contaminated soil were excavated and subsequently loaded out utilizing a front end loader.

Containment

Excavated soil at the Holmden Avenue property was loaded into dump trucks. These trucks were outfitted with tarps to eliminate windblown soil particles during transportation. The material was then transported to the Master Metals Site and placed in the on site tank containment unit where it was stockpiled while awaiting analytical characterization. This tank unit was constructed during the Time Critical Removal Action to contain treated solid media.



Treated soil containment unit

Verification

A sampling grid was established to provide a systematic collection of verification samples. Due to the irregular shape of the Homden Avenue property, replicating consistent grid dimensions was very difficult. However, no grid was established larger than 50 feet by 50 feet. One sample was collected from each excavated grid and one sample was collected from each grid extended an additional 50 feet down the slope past the excavated grid. Verification results can be found in the attached Table 1 and the verification grid system is shown in Figure 1.

Treatment

Analytical characterization results of the untreated soil reported that the majority of the stockpiled soil would require stabilization prior to ultimate disposal (Table 1: US-01 through US-08). Treatment reagent was procured to treat the soil based conservatively on the initial treatability study for excavated soil from the Master Metals Site. Treatment was conducted directly in the tank containment unit utilizing an excavator. Immediately following treatment activities, eight verification samples were collected to verify treatment was successful in reducing the lead toxicity characteristic. Results of treatment verification are shown in Table 1 (TS-01 through TS-08).

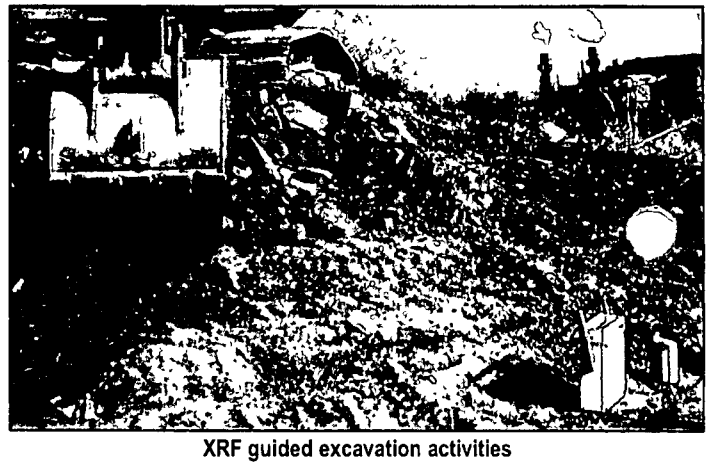
Backfill and Site Restoration

Backfill sources were identified during the second week of November in anticipation of site restoration activities. Initially, two samples were collected and submitted to Ross Analytical in Strongsville, Ohio. Two additional samples were collected and submitted the following week. This second set of samples was determined to be at or below background levels for the eight RCRA metals, pesticides, total recoverable petroleum hydrocarbons, and soil pH.

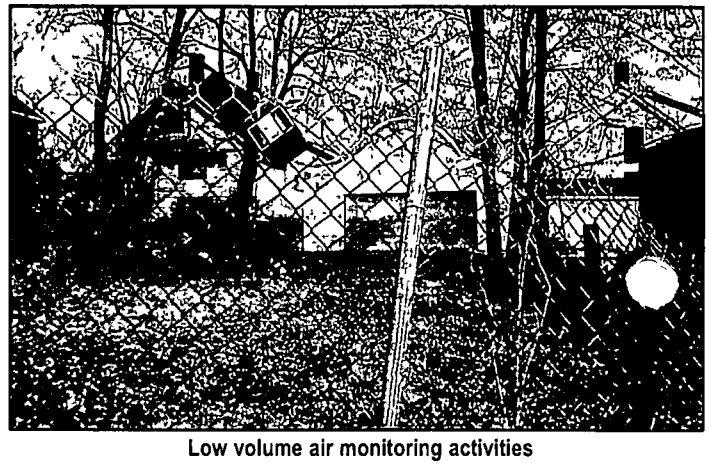
Backfill began with the addition of a twelve inch lift of blue clay over the entire excavated area. This lift was followed with a four to six inch layer of top soil for vegetative cover. Material was compacted and graded with a dozer over the area. Final grading of the site was conducted to eliminate the collection of standing water which had occurred due to the original site conditions.

After completion of the final grade the site was seeded with a rye, fescue and bluegrass mixture. Directly on top of the seed, a biodegradable erosion control matting was installed to help eliminate loss of the top soil layer. The area will be reseeded in the spring if a suitable strand of grass has not developed. Finally, silt fence was installed in key areas to control surface water runoff.

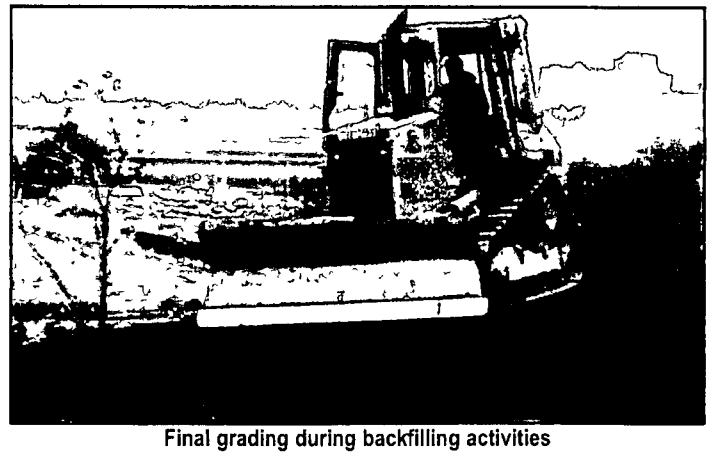
Removal activities



XRF guided excavation activities



Low volume air monitoring activities



Final grading during backfilling activities

Other Work Performed During this Reporting Period

- completed the sewer inspection as part of the Phase II EE/CA investigation
- repair of access gate located in the southeast corner of the site

Sampling and Analysis Activities

Sampling activities during this reporting period have included XRF screening, verification sampling, soil characterization, and treatment verification. Air sampling activities consisted of low volume ambient air sampling of personnel and perimeter monitoring.

A total of twenty-six samples were collected from twenty-three grids for excavation verification. Following initial excavation one grid was determined to be above 400 ppm total lead; this grid was excavated to greater depth and three additional samples were collected to verify that the clean up criteria had been achieved. Results are shown in Table 1.

Prior to treatment the stockpiled soil (US-xx) was characterized to determine if stabilization was necessary. Treatment verification was conducted by collecting a sample from approximately every 200 yds^3. Each sample was analyzed for TCLP Pb. Results are shown in the attached analytical Table 1. Treatment verification results begin with the prefix TS-xx.

Low volume air pumps were utilized to conduct air sampling at the site due to the fact that no power supply was available. Pumps were established upwind and downwind of activities, as well as on personnel working in the exclusion zone prior to verification results. Results of all air sampling is provided in Table 2.

Anticipated Activities

During the next reporting period, ENTACT will revisit the site to repair the perimeter fence, erect safety fencing in specific on site areas and collect the final soil boring for the Phase II EE/CA investigation.

Seeding of restored areas

Placement of silt fence and erosion control matting

ENTACT CONTACTS

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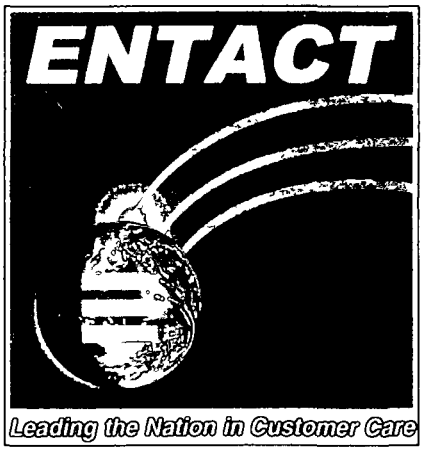
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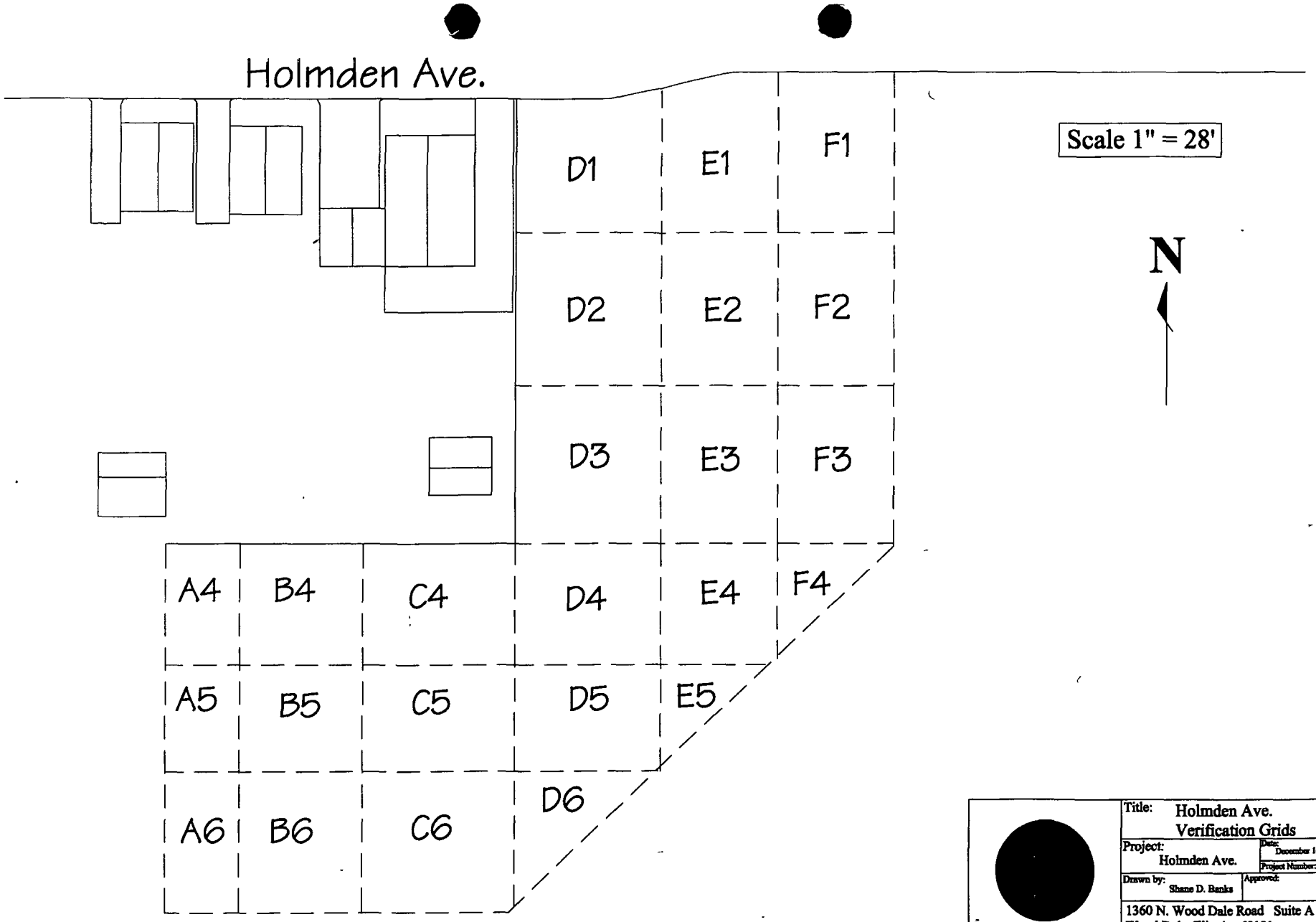

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Title: Holmden Ave. Verification Grids

Figure: 1

Project: Holmden Ave.

Date: December 16, 1997

Project Number: C176

Drawn by: Shane D. Banks

Approved:

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Summary of Pertinent Analytical Results

Date	Sample ID	Description	Analysis	Result	Units
11/17/97	VS-E-2	verification sample (excavation)	Total Pb	107	mg/Kg
11/17/97	VS-E-3	verification sample (excavation)	Total Pb	22.3	mg/Kg
11/17/97	VS-C-5	verification sample (excavation)	Total Pb	248	mg/Kg
11/17/97	VS-C-4	verification sample (excavation)	Total Pb	237	mg/Kg
11/17/97	VS-B-4	verification sample (excavation)	Total Pb	446	mg/Kg
11/17/97	VS-F-2	verification sample (excavation)	Total Pb	169	mg/Kg
11/17/97	VS-C-6	verification sample (excavation)	Total Pb	299	mg/Kg
11/17/97	VS-D-2	verification sample (excavation)	Total Pb	14.6	mg/Kg
11/17/97	VS-B-5	verification sample (excavation)	Total Pb	140	mg/Kg
11/17/97	VS-A-4	verification sample (excavation)	Total Pb	376	mg/Kg
11/17/97	VS-D-1	verification sample (excavation)	Total Pb	25.0	mg/Kg
11/17/97	VS-D-3	verification sample (excavation)	Total Pb	11.0	mg/Kg
11/17/97	VS-F-3	verification sample (excavation)	Total Pb	217	mg/Kg
11/17/97	VS-A-5	verification sample (excavation)	Total Pb	268	mg/Kg
11/17/97	BF-003	backfill source	Arsenic	10.0	mg/Kg
			Barium	20.1	mg/Kg
			Cadmium	< 0.48	mg/Kg
			Chromium	4.4	mg/Kg
			Lead	11.9	mg/Kg
			Selenium	< 10	mg/Kg
			Silver	< 1.0	mg/Kg
			Mercury	< 0.08	mg/Kg
			soil pH	7.77	
			Pesticides		
			* all pesticides below detection limit		

11/17/97	BF-004	backfill source	Arsenic	< 10	mg/Kg
			Barium	56.6	mg/Kg
			Cadmium	< 0.49	mg/Kg
			Chromium	11.4	mg/Kg
			Lead	25.0	mg/Kg
			Selenium	< 10	mg/Kg
			Silver	< 1.0	mg/Kg
			Mercury	< 0.08	mg/Kg
			soil pH	7.21	
			Pesticides		
			4,4' -DDE	8.80	ug/Kg
			4,4' -DDD	6.9	ug/Kg
			4,4' -DDT	11.0	ug/Kg
			gamma-Chlordane	2.40	ug/Kg
			alpha-Chlordane	2.60	ug/Kg
			* all others below detection limit		
11/18/97	VS-E-6	verification sample (excavation)	Total Pb	289	mg/Kg
11/18/97	VS-E-5	verification sample (excavation)	Total Pb	266	mg/Kg
11/18/97	VS-D-5	verification sample (excavation)	Total Pb	184	mg/Kg
11/18/97	VS-F-1	verification sample (excavation)	Total Pb	193	mg/Kg
11/18/97	VS-D-6	verification sample (excavation)	Total Pb	198	mg/Kg
11/18/97	VS-E-1	verification sample (excavation)	Total Pb	255	mg/Kg
11/18/97	VS-E-4	verification sample (excavation)	Total Pb	72.3	mg/Kg
11/18/97	VS-D-4	verification sample (excavation)	Total Pb	58.6	mg/Kg
11/18/97	VS-F-4	verification sample (excavation)	Total Pb	139	mg/Kg
11/19/97	BF-005	backfill source	Arsenic	17	mg/Kg
			Barium	32.4	mg/Kg
			Cadmium	1.42	mg/Kg
			Chromium	10.7	mg/Kg
			Lead	12.7	mg/Kg
			Selenium	< 10	mg/Kg
			Silver	< 1.0	mg/Kg
			Mercury	< 0.05	mg/Kg
			TRPH	110	mg/Kg
			soil pH	7.39	
			Pesticides		
			beta-BHC	2.6	ug/Kg
			* all other pesticides below detection limit		

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TABLE 1
Analytical Data

Master Metals Site

11/19/97	BF-006	backfill source	Arsenic	15	mg/Kg
			Barium	55.8	mg/Kg
			Cadmium	0.74	mg/Kg
			Chromium	14.0	mg/Kg
			Lead	22.4	mg/Kg
			Selenium	< 10	mg/Kg
			Silver	< 1.0	mg/Kg
			Mercury	< 0.05	mg/Kg
			TRPH	80	mg/Kg
			soil pH	7.27	
			Pesticides		
			* all pesticides below detection limit		
11/19/97	US-01	untreated soil (characterization)	Total Pb	2,030	mg/Kg
			TCLP Pb	19.9	mg/L
11/19/97	US-02	untreated soil (characterization)	Total Pb	1,850	mg/Kg
			TCLP Pb	5.56	mg/L
11/19/97	US-03	untreated soil (characterization)	Total Pb	1,460	mg/Kg
			TCLP Pb	9.63	mg/L
11/19/97	US-04	untreated soil (characterization)	Total Pb	2,880	mg/Kg
			TCLP Pb	8.94	mg/L
11/19/97	US-05	untreated soil (characterization)	Total Pb	3,190	mg/Kg
			TCLP Pb	16.2	mg/L
11/19/97	US-06	untreated soil (characterization)	Total Pb	4,310	mg/Kg
			TCLP Pb	56.0	mg/L
11/19/97	US-07	untreated soil (characterization)	Total Pb	1,720	mg/Kg
			TCLP Pb	5.93	mg/L
11/19/97	US-08	untreated soil (characterization)	Total Pb	1,040	mg/Kg
			TCLP Pb	4.21	mg/L
11/19/97	VS-B-4-a	verification sample (excavation)	Total Pb	61.2	mg/Kg
11/19/97	VS-B-4-b	verification sample (excavation)	Total Pb	56.9	mg/Kg
11/19/97	VS-B-4-c	verification sample (excavation)	Total Pb	16.3	mg/Kg
12/4/97	TS-01	treatment verification	TCLP Pb	< 0.25	mg/L
12/4/97	TS-02	treatment verification	TCLP Pb	< 0.25	mg/L
12/4/97	TS-03	treatment verification	TCLP Pb	0.720	mg/L

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TABLE 2
Low Vol Pump Data

Master Metals Site

Date	Sample ID	Total Pb (ug/m3)	Location
11/13/97	AS-01	2.8	downwind
11/13/97	AS-03	< 2.0	upwind
11/14/97	AS-04	< 2.0	upwind
11/14/97	AS-05	< 2.0	downwind
11/17/97	AS-08	< 2.0	upwind
11/17/97	AS-09	< 2.0	downwind
11/19/97	AS-10	< 2.0	upwind
11/19/97	AS-11	< 2.0	downwind
11/20/97	AS-13	< 2.0	upwind
11/20/97	AS-15	< 2.0	downwind

12/4/97	TS-04	treatment verification	TCLP Pb	< 0.25	mg/L
12/4/97	TS-05	treatment verification	TCLP Pb	< 0.25	mg/L
12/4/97	TS-06	treatment verification	TCLP Pb	< 0.25	mg/L
12/4/97	TS-07	treatment verification	TCLP Pb	< 0.25	mg/L
12/4/97	TS-08	treatment verification	TCLP Pb	< 0.25	mg/L